

## **REMARKS/ARGUMENTS**

The prior art rejection presented in the Office Action dated September 22, 2009 (hereinafter Office Action), has been considered but is believed to be improper. Reconsideration of the pending claims and allowance of the application in view of the present response is respectfully requested.

With respect to the § 112 rejection of claim 2, the claim has been amended in accordance with the Examiner's suggestions. Further support for these changes may be found in the original specification at page 5, line 35 through page 6, line 7. Since the Office Action indicates that the changes overcome the rejection, Applicant accordingly requests that the rejection be withdrawn.

Applicant respectfully maintains the traversal of each of the prior art rejections (§§ 102(b) and 103(a)), each of which is based solely upon the teachings of U.S. Patent No. 5,729,611 to Bonneville (hereinafter "Bonneville"), because Bonneville does not teach or suggest each of the claimed limitations and instead is unrelated to the claimed invention. Specifically, Bonneville does not teach or suggest a dynamic range controller or a method for operating a dynamic range control. As explained in the instant specification, dynamic range controllers are used as a slow volume regulation to prevent overload for transducers without signal dynamic compression, which results in reduced loudness. In contrast, Bonneville is directed to monitoring the actual, physical displacement of a cone/voice coil to monitor clipping levels (*see, e.g.*, Abstract). A skilled artisan would recognize that signal clipping and dynamic range control are distinct technologies. Since Bonneville does not teach or suggest dynamic range control, Bonneville at least fails to teach detecting the power of the audio signal input (of a dynamic range control) continuously, as claimed in each of the independent claims. The asserted monitoring of a motion sensor by Bonneville fails to correspond to the claimed power detection of an input signal of a dynamic range control.

In addition, Bonneville's clipping thresholds do not correspond to the claimed maximum power level for short time interval operation and maximum power level for long time interval operation of an electro acoustic transducer. For example, neither of

Bonneville's thresholds, which are arbitrary decibel levels below the level at which clipping will begin, are identified as being a maximum power level for either short term or long term operation of an electro acoustic transducer. Further, Bonneville's lower threshold TH1 (asserted as corresponding to the claimed maximum power level for long time interval operation) has not been shown to teach or suggest overriding the higher threshold TH2. The cited portion of Bonneville teaches that once  $V_{amp}$  falls below TH2, *e.g.*, the second control is no longer applicable, the first control circuit continues to lower  $V_{amp}$  to a level below TH1. In contrast to the claimed overriding, Bonneville teaches that the second control signal operates when the level exceeds TH2 regardless of the first control signal's operation. Without a presentation of correspondence to each of the claimed limitations, the prior art rejections are improper.

With particular respect to the § 102(b) rejection, to anticipate a claim the asserted reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The Federal Circuit also recently held that "Because the hallmark of anticipation is prior invention, the prior art reference—in order to anticipate under 35 U.S.C. § 102—must not only disclose all elements of the claim within the four corners of the document, but must also disclose those elements 'arranged as in the claim.'" (*Net Moneyin, Inc. v. Verisign, Inc.*, 545 F.3d 1359, 2008 WL 4614511 (Fed. Cir. 2008) quoting *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983)). Therefore, all claim elements and their limitations, must be found in the prior art reference to maintain the rejection based on 35 U.S.C. § 102. Applicant respectfully submits that Bonneville does not teach every element of independent claims 1, 11, and 14 in the requisite detail and therefore fails to anticipate claims 1-7 and 11-15.

Dependent claims 2-7, 12, 13, and 15 depend from independent claims 1, 11, and 14, respectively, and also stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Bonneville. While Applicant does not acquiesce with the particular rejections to these dependent claims, these rejections are also improper for the reasons

discussed above in connection with the independent claims. These dependent claims include all of the limitations of their respective base claims and any intervening claims and recite additional features which further distinguish these claims from the cited reference. Therefore, the rejection of dependent claims 2-7, 12, 13, and 15 is improper, and Applicant requests that the rejection be withdrawn.

With particular respect to the rejection of dependent claim 15, Applicant further traverses because the asserted teachings do not correspond to the claimed limitations. For example, claim 15 recites that the audio source is a digital audio signal source. However, the cited portion of Bonneville at Col. 5, lines 58-64 teaches that an analog source is converted (after pre-amplification) to a digital signal; therefore, Bonneville's audio input/audio source is still an analog source (*e.g.*, an acoustic subwoofer signal). The asserted conversion of Bonneville's input signal fails to correspond to the claimed digital audio source. Without a presentation of correspondence to each of the claimed limitations, the prior art rejections are improper. Applicant accordingly requests that the rejection be withdrawn.

With particular respect to the § 103(a) rejection of claims 8 and 16, Applicant maintains the traversal because the asserted modifications fail to overcome the above-discussed deficiencies in the teachings of Bonneville. For example, modifying Bonneville's process to be implemented with a computer program would still fail to teach the use of a dynamic range controller as discussed above. Also, contrary to the assertion at page eight, Bonneville could not be adapted as a computer program because Bonneville's system requires a sensor signal, and to adapt such sensor signal, the system has to first produce an acoustic signal. Moreover, using an integrated circuit to determine where an amplifier would start clipping fails to correspond to the claimed means to receive at least two thresholds in a connector of an electro acoustic transducer. Thus, the asserted modifications of the teachings of Bonneville do not teach each of the limitations of claims 8 and 16, and the rejection should be withdrawn.

It should be noted that Applicant does not acquiesce to the Examiner's statements or conclusions concerning what would have been obvious to one of ordinary skill in the art,

obvious design choices, inherent, common knowledge at the time of Applicant's invention, officially noticed facts, and the like. Applicant reserves the right to address in detail the Examiner's characterizations, conclusions, and rejections in future prosecution.

Also, claims 1, 8, 11, 12, and 14-16 have been amended. The independent claims and claims 15 and 16 have been amended to provide consistent claim language, improve readability, and to characterize that the short time interval and the long time interval operations are independently controlled. Support for these changes may be found in the original specification at page 11, lines 29-37; therefore, these changes do not introduce new matter. Claim 12 has also been amended, and support for these changes may be found in the original specification at page 13, lines 3-7. None of these changes are made for reasons related to the asserted reference and do not introduce new matter. These claims, with or without the changes, are believed to be patentable over the teachings of the asserted reference for the reasons set forth above.

Further, new claims 17-22 have been added. Support for these claims may be found in the original specification, for example, at page 8, lines 3-9; page 9, lines 26-34; page 14, lines 16-26; and page 12, lines 20-22; therefore, the claims do not introduce new matter. These claims are also believed to be patentable over the asserted reference for the reasons set forth above in connection with the independent claims.

Authorization is given to charge Deposit Account No. 50-3581 (IHN.093.WUS) any necessary fees for this filing. If the Examiner believes it necessary or helpful, the Examiner is invited to contact the undersigned attorney to discuss any issues related to this case.

Respectfully submitted,

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